BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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In the Matter of Interstate Power Company s 2003 Resource Plan

ISSUE DATE: December17, 2004

DOCKET NO. E-001/RP-03-2040

ORDER ACCEPTING RESOURCE PLAN, REQUIRING REPORTING AND SETTING REQUIREMENTS FOR NEXT RESOURCE PLAN

PROCEDURAL HISTORY

On December 31, 2003, Interstate Power and Light Company (Interstate), an operating utility company of Alliant Energy Corporation (Alliant), filed its resource plan for 2003-2018.

On May 12, 2004, the Minnesota Department of Commerce (DOC) filed comments recommending the Commission reject Interstate s resource plan.

On July 15, 2004, Interstate filed reply comments.

On September 16, 2004, the DOC filed reply comments recommending acceptance of the plan, ongoing reporting, and improvements for Interstate s future resource plans.

On November 4, 2004, Interstate s resource plan came before the Commission.

FINDINGS AND CONCLUSIONS

I. Resource Planning in General

In an effort to provide the electricity demanded by its customers in a cost-effective manner, an electric utility considers both supply and demand. The utility can supply electricity through a combination of generation and power purchases. The utility can also manage its customers demand by encouraging customers to conserve electricity, or to shift activities requiring electricity to periods when there is less demand on the electric system.

A resource plan contains a set of demand-side and supply-side resource options that the utility could use to meet the needs of retail customers throughout the forecast period. Minn. Stat. § 216B.2422, subd. 1(d). A utility considers both the supply-side resources and the demand-side

resources together on an equivalent basis. Through the process of creating a resource plan, a utility can identify the least-expensive reliable combination of supply- and demand-side resources that will meet the utility s requirements, consistent with state and federal law and public policy.

The Commission has jurisdiction over this matter pursuant to Minnesota Statutes § 216B.2422 and Minnesota Rules parts 7843.0100 to 7843.0600. Generally, these laws direct a utility to file biennial reports on (1) the projected need for electricity in its service areas over the next 15 years; (2) its plans for meeting projected need; (3) the analytical process used to develop its plans for meeting projected need; and (4) the reasons for adopting the specific resource mix proposed to meet the projected need. The process is designed to encourage participation from the public, other regulatory agencies and the Commission.

Ultimately the Commission must approve, reject, or modify the plan of a public utility, as defined in section 216B.02, subdivision 4, consistent with the public interest. Minn. Stat. § 216B.2422, subd. 2.

II. Interstate Power and Light Company

Interstate is an operating utility company of Alliant. Interstate serves approximately 500,000 electric customers in Iowa, Illinois and Minnesota with a system peak demand of approximately 3200 megawatts. Approximately eight percent of Interstate s electric customers are in Minnesota.

III. The Resource Plan

A. Resource Planning Approach

Interstate s resource plan covers the period from 2003 through 2018. Interstate began planning by analyzing the amount of electrical energy that its customers will need, and the amount of capacity it will need to deliver that energy upon demand. Comparing these forecasts to its current capacity, Interstate determined when it would need additional resources to meet demand.

Interstate then evaluated various combinations of resources for meeting the unmet needs. For purposes of facilitating comparison, Interstate used a computer model to determine the least-cost means of supplying the unmet demand assuming that Interstate s demand-side programs remain constant. Interstate labeled this scenario the reference case. Interstate then analyzed variations of this scenario to see if it could find a more desirable option. Interstate calculated the cost of each supply-side scenario three times: once assuming that environmental costs are negligible, once assuming that they are low, and once assuming that they are high, as those terms are defined in prior Commission orders.[1] In addition, Interstate considered a variety of scenarios for managing demand to find the most cost-effective one.

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[1] See *In the Matter of the Quantification of Environmental Costs Pursuant to Laws of Minnesota 1993, Chapter 356, Section 3*, Docket No. E-999/CI-93-583 ORDER AFFIRMING IN PART AND MODIFYING IN PART ORDER ESTABLISHING ENVIRONMENTAL COST VALUES ([illegible]) and updated *In the Matter of the Investigation into Environmental and Socioeconomic Costs*, Docket No. E-999/CI-00-1636, ORDER UPDATING EXTERNALITY VALUES AND AUTHORIZING COMMENT PERIODS ON CO2, PM2.5, AND APPLICATION OF EXTERNALITY VALUES TO POWER PURCHASES (May 3, 2001); see also Minn. Stat. § 216B.2422, subd. 3; Minn. Rules pt. 7843.0400.

After considering all these scenarios, Interstate selected the supply- and demand-side options it found to be optimal, and identified steps to implement its favored plan.

B. Forecasts

Interstate forecasted the amount of electrical energy that its customers would need, and the amount of capacity it would need to deliver that energy on demand. Next, Interstate increased these forecasts by 18% (the reserve margin). The reserve margin enhances system reliability by ensuring that there is enough capacity to address unanticipated surges in demand or loss of supply.

Interstate then adjusted its forecast of peak demand by a diversity factor. This factor reflects the idea that Interstate can call upon some of Alliant s resources to serve Interstate s customers during periods of peak demand, assuming that the rest of Alliant s systems would not also be experiencing peak demand simultaneously.

Interstate forecasted its energy requirements and peak demand for each year from 2003 to 2018 under three scenarios low, base and high as well as the reference case scenario. Using its base-case scenario, Interstate projected that its energy use will increase from 16,452 megawatt-hours (MWh) in 2003 to 20,168 MWh in 2018, or roughly 1.37% per year, while its peak demand will increase from 2865 MW to 3706 MW, or roughly 1.73% per year.

C. Demand-Side Management

1. In General

In order to obtain sufficient energy and power to meet customer demand, utilities may build facilities to generate, transmit and distribute electricity, or refurbish those facilities, or buy the right to use the capacity of other utilities facilities. Alternatively, a utility may seek to manage consumer demand through demand-side management (DSM) programs, thereby forestalling the need for such supply-side investments.

The value of a DSM program increases to the extent that it helps a utility avoid costs. This includes the cost of supply-side projects that can be postponed or avoided, plus the cost of the fuel the utility does not have to use and the environmental harm the utility does not need to cause.

2. DSM Embedded in Forecast Data

Actual consumption data reveals trends in the amount of energy and capacity needed to serve Interstate s customers, but this data also reflects past efforts to control customer demand. As the Commission has noted previously,[2] to establish a fair benchmark for analyzing potential future demand- and supply-side resources, a utility should seek to determine the amount of energy and capacity it would need in the absence of DSM programs. Because Interstate has no direct way to measure demand that does *not* occur and energy that is *not* consumed, Interstate refers to these savings as implicit DSM.

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[2] See, for example, *In the Matter of Great River Energy s 2003 Integrated Resource Plan,* Docket No. ET-2/RP-03-974 ORDER APPROVING GREAT RIVER ENERGY S 2003 RESOURCE PLAN, ACCEPTING COMMITMENTS FOR IMPROVEMENTS AND CONSULTATION, AND ENCOURAGING CONSIDERATION OF ENVIRONMENTAL ISSUES (April 26, 2004), at 3-4.

To adjust for the effects of implicit DSM, Interstate analyzed how much energy and capacity its DSM programs helped it avoid each year from 1996 to 2000. Interstate then projected this trend into the future. By adding the projected amount of implicit DSM savings to the forecasted amount of demand based on historical data, Interstate was able to generate an estimate of the amount of energy and capacity it would need in the absence of any DSM programs.

The DOC supports Interstate s efforts to account for implicit DSM, but expresses concerns about Interstate s methods. Among other things, the DOC questions Interstate s choice to estimate implicit DSM on the basis of only five years of data, from 1996-2000. In contrast, Interstate relies on data from 1982-2002, or twenty-one years, for the rest of its forecast.

Interstate acknowledges that additional data might refine its estimate of DSM saving, but is not persuaded that much improvement would result. Given that Minnesota represents such a small portion of Interstate s total system, moreover, Interstate argues that the effect of any correction would be correspondingly small and unlikely to influence Interstate s choice of plans for Minnesota.

The DOC acknowledges that improvements to Interstate s analysis are unlikely to produce large changes for Minnesota consumers, and consequently does not recommend changing Interstate s current filing on this basis. For future resource plan filings, however, the DOC recommends estimating implicit DSM savings based on the same range of data used to develop the rest of its forecast, if available. The DOC also notes that other electric utilities are struggling with the challenge of estimating the effects of past DSM programs; the DOC plans an industry-wide discussion to address this matter.

The Commission is encouraged to observe the degree of cooperation and agreement between the parties. The Commission finds the DOC s proposals persuasive. While the shortcomings in Interstate s forecasting methods may not warrant revising its current plan, the Commission concludes that analyzing all available data will make future estimates of implicit DSM more reliable. The Commission will direct Interstate to prepare its next resource plan filing on this basis.

3. DSM Modeling

Interstate generated various demand-side management scenarios for purposes of comparison. But none of its scenarios included demand-side management investments after 2008.

The DOC objects to Interstate s failure to forecast DSM investments beyond 2008. Among other concerns, the DOC notes that Interstate has a statutory duty to make certain minimum investments in Conservation Improvement Programs (CIP). Minn. Stat. § 216B.241. The DOC questions whether Interstate s scenarios comport with current law.

Interstate acknowledges its CIP duties but defends its planning process nonetheless. Interstate argues that long-term forecasts of DSM results are speculative; that useful insights can be gained from analyzing scenarios, even when the utility knows it cannot implement the scenario; and that the Legislature could change the CIP law. Interstate also states that Minnesota customers represent a small portion of its system, and that changes in Minnesota-specific DSM models would be unlikely to change its resource plan.

The Commission appreciates the complexities of forecasting and the value of considering alternative possibilities, and acknowledges that changes to Minnesota s DSM plan may well not alter the rest of Interstate s plans. Consequently, the Commission will not require Interstate to modify its current resource plan on this basis. Nevertheless, the resource planning process is intended to encourage utilities to anticipate and plan for foreseeable events. It is only appropriate that Interstate plan for the possibility that current law remains in effect. Doing so would require Interstate to assume that it will continue to invest in DSM, and presumably continue to displace the need for some amount of energy or demand or both. Consistent with Commission s past decisions,[3] therefore, the Commission will direct Interstate in its next resource plan to design at least one DSM scenario that includes new DSM in each year of the planning period.

4. Plan Selection

In selecting its favored resource plan, Interstate states that its base case level of demand-side management was the most cost-effective option. Under this option,

- from 2004-2005 Interstate would make only the DSM investments that the company had proposed in its 2004-2005 CIP plan,
- from 2006-2008 Interstate would increase its DSM investments slightly despite reductions in anticipated results from the programs, and
- after 2008 Interstate would make no DSM investments at all.

However, there was some ambiguity about whether Interstate actually proposed to implement its base case scenario. Interstate did not use this scenario for analyzing its supply-side alternatives. Rather, Interstate used its reference case scenario, which assumes that Interstate s existing DSM programs remain in place. Moreover, the base case scenario assumes that Interstate implements a level of DSM that is less than the goals approved by the DOC for Interstate s CIP.[4]

In contrast to the base case scenario, the reference case scenario assumes that current levels of DSM continue. Although Interstate neglected to estimate the cost of the DSM programs included in the reference case, the DOC notes that the anticipated outcomes of that scenario are within the range of outcomes produced by the Interstate s other DSM scenarios in the early years, and produce greater energy and demand savings than the base case scenario. For these reasons the DOC recommends that Interstate implement its resource plan including the reference case level of demand-side management rather than the base case scenario.

Interstate now agrees to continue making the reference case level of investment in DSM. Based upon the record of this proceeding, the Commission finds the parties agreement about the appropriate level of DSM investment to be reasonable and consistent with the applicable statutory requirements.

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[3] See, for example, [illegible], Docket No. E-015/RP-99-1543 ORDER APPROVING MINNESOTA POWER s 2000 RESOURCE PLAN, REQUIRING SUPPLEMENT, AND SETTING REQUIREMENTS FOR NEXT RESOURCE PLAN (August 21, 2000) at 6-7.

[4] *In the Matter of Implementation of IPL s 2004-2005 Biennial Conservation Improvement Program*, Docket No. E, G-001/CIP-03-860 DECISION (December 11, 2003).

D. Supply-Side Resources

1. In General

Interstate has 26 generating units capable of producing approximately 3000 MW of power. Subtracting anticipated demand from anticipated capacity, Interstate forecasts that the demand for power on its system may exceed existing capacity as early as 2008.

INTERSTATE S FORECASTED CAPACITY NEEDS

Year	Surplus/Deficit
2003	28 MW
2004	171 MW
2005	144 MW
2006	82 MW
2007	19 MW
2008	-45 MW
2009	-116 MW
2010	-183 MW
2011	-250 MW
2012	-320 MW
2013	-390 MW
2014	-462 MW
2015	-534 MW
2016	-609 MW
2017	-686 MW
2018	-762 MW

The levels of anticipated demand reflected in the preceding table assumes the reference case level of demand-side management. As noted in the previous DSM discussion, Interstate identifies the base case level of DSM as the most cost-effective option, but then uses the reference case level for analyzing supply-side options. The DOC recommended that Interstate implement the reference case level of DSM for purposes of the current resource plan. But prospectively, the DOC recommends that Interstate conduct its supply-side analysis using its most cost-effective DSM scenario consistent with legal requirements.

The Commission agrees. A utility can best evaluate a resource s costs and benefits if the utility can anticipate the context in which the resource would be used. The amount of customer demand Interstate needs to supply could be influenced by the amount of demand Interstate can manage cost-effectively through DSM programs. In its next resource plan, therefore, Interstate should strive to identify its optimal DSM strategy, and then evaluate its supply alternatives assuming the use of that strategy.

2. Operating Life of Existing Generators

According to Interstate s forecasts, demand for power will increase faster than supply during every year of the resource plan except 2004, when the new Emery Generation Station begins operations. To meet anticipated demand, Interstate proposes adding new generating capacity every two years beginning in 2008, as well as keeping all its existing generators in operation.

Interstate supplies most of its energy from coal-powered generators, some dating to the 1950s and 1960s. During Interstate s last resource plan docket, the DOC encouraged Interstate to develop plans for upgrading or replacing these aging generators, and the DOC has renewed this suggestion in the current docket. For depreciation purposes, Interstate had estimated that some of its generators would reach the end of their service lives and be retired before 2018.[5] The DOC argues that this is inconsistent with Interstate s plan to keep these generators in service through 2018.

Interstate acknowledges this inconsistency and agrees to reconcile these figures in future filings. Nevertheless, Interstate defends its contingency plans for maintaining generating capacity. Interstate explains that it is currently evaluating whether to make the necessary investments to extend the life of its existing generators. Where such extensions prove too expensive, Interstate plans to purchase power from the northern Illinois market and transmit it to Minnesota using capacity on transmission lines that Interstate has already secured. According to Interstate, northern Illinois will have excess generating capacity for years to come and will have relatively few opportunities to transmit the electricity elsewhere due to transmission line congestion. Consequently, Interstate argues that the DOC s concerns about Interstate s energy supply are unwarranted.

The DOC finds Interstate s contingency plans reasonable and therefore proposes no change in Interstate s resource plan on this basis. But the DOC recommends that Interstate continually apprise the Commission and the DOC of any significant decisions made by Interstate regarding its generation facilities.

The Commission finds the DOC s recommendation reasonable. In the interest of monitoring the changes in Interstate s generating capacity, the Commission will direct Interstate to keep the agencies apprised of significant developments.

3. Operating Life of the Duane Arnold Nuclear Plant

Prominent among Interstate s existing generators is the Duane Arnold Nuclear Plant. The federal licence to operate this plant expires in 2014. In evaluating Interstate s last resource plan, the DOC encouraged Interstate to evaluate whether to seek an extension of the licence. Interstate reports that this evaluation is now underway but incomplete, and Interstate does not expect the investigation to be done in time for its next resource plan filing.

The DOC emphasizes that Interstate should decide whether to seek to relicense the Duane Arnold plant in time to permit the construction of a substitute plant by 2014, if needed. Interstate argues that it could license and build a coal-powered generator within six years; consequently, a 2007 decision would leave sufficient time to build a substitute plant by 2014. In the meantime, Interstate assures the DOC that it is not foreclosing any options.

The DOC concludes that Interstate s proposed decision timeline is reasonable and therefore the DOC does not propose any change to Interstate s current resource plan on that basis. Instead the DOC recommends that, in its next resource plan filing, Interstate provide quantitative and

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[5] *In the Matter of Alliant Energy - Interstate Power and Light Company s Certification of Depreciation Rates for 2004*, Docket No. E, G-001/D-04-501 ORDER CERTIFYING DEPRECIATION RATES AND METHODS (July 9, 2004).

qualitative analysis of the choice between relicensing the Duane Arnold nuclear generating plant and other options, such as the construction of a new coal plant, based on the latest available information.

The Commission finds this recommendation reasonable and will adopt it. Given the magnitude of Interstate s decision whether or not to relicense the Duane Arnold Nuclear Plant, Interstate is justified in conducting as thorough an analysis as time permits but only as thorough as time permits. The Commission will look forward to reviewing the state of Interstate s analysis in its next resource plan.

4. Environmental Issues

Resource planning permits a utility to determine its least-cost method for ensuring that its supply of electricity is adequate to meet its anticipated demand of its customers. In making this assessment, however, a utility must consider various types of costs, including environmental costs. To ensure appropriate consideration of the environmental costs, the Commission directed Interstate to address a number of issues in the current resource plan.[6] Specifically, the Commission directed Interstate to do the following:

- Provide an analysis of whether Interstate s strategies for managing nitrogen oxide (NO_x) and sulfur dioxide (SO_2) emissions are the least-cost methods for complying with environmental laws.

- Provide contingency plans for complying with regional haze requirements that might emerge from various states control strategy plans.

- Report on Interstate s goals for reducing mercury emissions, strategies for achieving those goals, and achievements to date.

- Monitor industry-based initiatives for cutting greenhouse gas emissions.

- Report on contingency plans for complying with different forms of regulation designed to curb carbon dioxide (CO_2) emissions.

- Develop a comprehensive strategy for curbing a variety of harmful emissions, including an assessment of the current status of Interstate s plants, evaluation of technical and economic feasibility of various control scenarios, and a proposed plan that lists options in order of priority.

After discussions and reply comments, the DOC concludes that Interstate has reasonably complied with these environmental directives. In particular, the DOC praises the rigor with which Interstate developed its SO_2 strategy and evaluated the cost of potential regulations limiting greenhouse gas emissions, especially CO_2. In its next resource plan filing, the DOC recommends that Interstate include a further discussion of how environmental regulations influence the operation and cost of Interstate s supply-side resources.

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[6] *In the Matter of Interstate Power Company s 2001 Resource Plan*, Docket No. E-001/RP-01-1628 ORDER ACCEPTING RESOURCE PLAN AND SETTING REQUIREMENTS FOR NEXT RESOURCE PLAN (September 4, 2002).

The Commission appreciates Interstate s efforts in addressing these issues. Because environmental considerations will continue to bear on Interstate s choice of resources, the Commission finds the DOC s recommendation reasonable and will adopt it.

5. Renewable Energy Objectives

The Legislature directs electric utilities such as Interstate to make good faith efforts to secure a certain amount of electricity from qualifying renewable energy technologies, with the goal of securing the equivalent of 10% of total retail electric sales through renewable sources by 2015. Minn. Stat.
§ 216B.1691. In analyzing Interstate s last resource plan filing, the DOC expressed concern about Interstate s progress toward meeting its renewable energy objective.

In the current docket, Interstate reports that it can fulfill the statute s obligations by generating at least 900 MWh annually from renewable sources. Interstate plans to generate this electricity from wind-powered turbines and generators that burn switchgrass. Having reviewed Interstate s proposal, the DOC concludes that the plan appears to satisfy the statute s requirements.

But the DOC expresses concerns about how Interstate accounts for its renewably-generated energy. The DOC notes that other states have analogous obligations for using renewable sources of energy,[7] and that some Minnesota utilities have Green Pricing programs whereby consumers pay a premium for electricity generated from renewable sources.[8] The DOC expresses concern that utilities might seek to fulfill their various obligations by reporting each MWh of renewably-generated electricity multiple times in effect, double-counting the energy.

The Commission has recently issued orders interpreting a utility s obligations under § 216B.1691, including provisions regarding how to determine which renewably-powered electricity is being used to fulfill each state s mandates.[9] While the DOC does not recommend that Interstate make any specific changes to its current plan, the DOC recommends that in its next resource plan filing Interstate incorporate the effects of the Commission s renewable energy objectives Orders. In particular, the DOC recommends that Interstate verify that it has not double-counted the generation resources used to comply with the renewable energy objectives statute.

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[7] See, for example, Iowa Code Chapter 476 and Iowa Admin. Code Section 199-15.11.

[8] See Minn. Stat. § 216B.169.

[9] *In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility s Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. § 216B.1691*, Docket No. E-999/CI-03-869 INITIAL ORDER DETAILING CRITERIA AND STANDARDS FOR DETERMINING COMPLIANCE WITH MINN. STAT. § 216B.1691 AND REQUIRING CUSTOMER NOTIFICATION BY CERTAIN COOPERATIVE, MUNICIPAL, AND INVESTOR-OWNED DISTRIBUTION FACILITIES (June 1, 2004); ORDER AFTER RECONSIDERATION (August 13, 2004); SECOND ORDER IMPLEMENTING MINN. STAT. § 216B.1691, OPENING DOCKET TO INVESTIGATE MULTI-STATE PROGRAM FOR TRACKING AND TRADING RENEWABLE CREDITS, AND REQUESTING PERIODIC UPDATES FROM STAKEHOLDER GROUP (October 19, 2004).

The Commission finds the DOC s recommendation reasonable and will adopt it. To fulfill the Legislature s purpose in adopting the renewable energy objectives statute, the Commission will direct Interstate to conform its next resource plan to the requirements of the renewable energy objectives Orders and to verify that Interstate has not double-counted the renewably-generated electricity used to comply with the statute.

E. Transmission Resources

Transmission lines fulfill a number of functions in the electric system. Among other things, they transport electricity from where it is generated to where it is needed and enhance the systems reliability and security. Interstate reports having 6838 miles of transmission lines.

Interstate s resource plan depends upon reliable transmission. As noted above, Interstate s demand forecast is adjusted to reflect the assumption that Interstate may call upon Alliant s excess capacity during times of peak demand. This adjustment presumes that there is sufficient transmission capacity to permit Interstate to import electricity generated elsewhere in Alliant s system. Also, Interstate proposes to import electricity from northern Illinois if it must retire an existing generator.

The DOC has expressed concern about the availability of transmission capacity in Interstate s service area. In particular, the Midwest Independent System Operator (MISO), an entity that operates much of the transmission grid in the Midwest, reports congestion along the Iowa/Minnesota border. Interstate has acknowledged difficulties in completing transmission transactions in this area.

Interstate reports that it is currently working on several high-voltage (up to 161 thousand volts (kV)) transmission lines to reinforce the transmission grid in this area. Consequently the DOC does not propose any changes to Interstate s current resource plan. But the DOC recommends that Interstate keep the Commission and the DOC apprised of any significant decisions that pertain to transmission facilities. In addition, the DOC recommends that Interstate s next resource plan filing identify any transmission constraints in its service area, and the effects that any such constraints are having on the availability of resources.

The Commission is keenly interested in any matter that may influence the reliability of electric service in Minnesota. The Commission is satisfied that Interstate is taking appropriate measures to ensure that reliability, and that the DOC is also aware of these developments. In the interest of monitoring the situation, the Commission will adopt the DOC s recommendations that Interstate keep the agencies apprised of significant developments and that Interstate provide a more detailed discussion in its next resource plan filing.

IV. Conclusion

The Commission agrees with the DOC s ultimate conclusion that Interstate s resource plan meets the requirements of the resource planning statute and rules and should be accepted as consistent with the public interest. The Commission also agrees with the DOC that there are several issues that need to be addressed more fully in the company s next resource plan in order to better understand the utility s future needs and determine the best resource mix for meeting those needs. In the meantime, Interstate should keep both agencies apprised of any significant decisions regarding generation and transmission facilities.

ORDER

1. Interstate s resource plan for 2003-2018 is accepted as filed, with the understanding that Interstate will make the same level of investment in demand-side management that it would make in its reference case.

2. Interstate shall apprise the Commission and the DOC on an ongoing basis of any significant decisions made by Interstate regarding generation or transmission facilities.

3. Interstate shall make the following changes for its next resource plan filing:

   A. Regarding demand-side management, Interstate shall

      " Use the same range of data to estimate both the load forecast and the implicit effects of future DSM, if data is available, and

      " Design at least one DSM scenario that includes new DSM in each year of the planning period, assuming at a minimum that Conservation Improvement Program statutory spending requirements will continue throughout the planning period.

   B. Regarding supply-side analysis, Interstate shall

      " Base its supply-side analysis on the amount of need remaining after deploying its optimal DSM scenario,

      " Include a quantitative and qualitative analysis of Interstate s choice between relicensing the Duane Arnold nuclear generating plant and other options, such as the construction of a substitute coal plant, based on best available data,

      " Incorporate the effects of the Commission s decisions pertaining to Minnesota s renewable energy objectives, Minnesota Statutes § 216B.1691, and

      " Verify that Interstate has not double-counted the generation resources used to comply with the renewable energy objectives statute.

   C. Include a discussion and analysis on how environmental regulations affect the operation and cost of Interstate s supply-side resources.

   D. Identify transmission constraints in Interstate s service area and discuss how these constraints affect its resource availability.

4. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

(S E A L)

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